### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024176 Address: 333 Burma Road **Date Inspected:** 29-May-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Zhu Zhong Hai No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No N/A **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** Orthotropic Box Girder (OBG)

## **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Manoj Prabhune was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

This QA Inspector randomly observed the following work in progress:

**OBG TRIAL ASSEMBLY YARD** 

#### WELDING:

## Segment 13BW~13CW

This QA Inspector observed ZPMC qualified welding personnel identified as 066734 perform Flux Cored Arc Welding (FCAW), weld joint identified as SEG3015M-165; located On Orthotropic Box Girder (OBG) Bottom Plate to Longitudinal Diaphragm CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Sun Tian Liang. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. The Welding Repair Report (WRR) was B-WR2110.ZPMC Quality Control (QC) Mr. Sun Tian Liang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-345-FCAW-2G (2F) ESAB-Repair. See attached photo for further details.

Segment 14 West

# WELDING INSPECTION REPORT

(Continued Page 2 of 3)

This QA Inspector observed ZPMC qualified welding personnel identified as 067572 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020E-106; located On Orthotropic Box Girder (OBG) Floor Beam I-Rib to SA3416A CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhu Lin was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1. See attached photo for further details.

# Segment 14 West

This QA Inspector observed ZPMC qualified welding personnel identified as 069118 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020E-086; located On Orthotropic Box Girder (OBG) Floor Beam I-Rib to SA3416A CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhu Lin was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1.

#### Segment 14 West

This QA Inspector observed ZPMC qualified welding personnel identified as 067765 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020E-081; located On Orthotropic Box Girder (OBG) Floor Beam I-Rib to SA3416A CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhu Lin was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1.

# Segment 14 West

This QA Inspector observed ZPMC qualified welding personnel identified as 068493 perform Shielded Metal Arc Welding (SMAW), weld joint identified as SEG3020Q-175; located On Orthotropic Box Girder (OBG) AP I-Rib to Floor Beam CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Zhu Lin. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Zhu Lin was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1.

## Segment 13CE

This QA Inspector observed ZPMC qualified welding personnel identified as 066258 perform Shielded Metal Arc Welding (SMAW), weld joint identified as DP3102-001-257; located On Orthotropic Box Girder (OBG) Deck Plate to Longitudinal Diaphragm CJP Weld; ZPMC Quality Control (QC) is identified as Mr. Wang Li Yang. This QA Inspector observed the base material appears to have been preheated by an electrical heating element prior to welding. ZPMC Quality Control (QC) Mr. Wang Li Yang was onsite monitoring the welding variables. The welding variables recorded by QC appeared to comply with applicable WPS-B-P-2214-TC-U4b-FCM-1.

Unless otherwise noted, all work observed on this date appeared to generally comply with the applicable contract documents.

# WELDING INSPECTION REPORT

(Continued Page 3 of 3)





# **Summary of Conversations:**

No significant conversations were reported on this date.

## **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact James Devey - 15000026784, who represents the Office of Structural Materials for your project.

<b>Inspected By:</b>	Prabhune, Manoj	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer